For this module, I was given a dataset containing values of businesses applying for funding from the nonprofit Alphabet Soup. The goal was to create a model that can determine based on a set of features (income amount, application type, ask amount, etc) if an applicant will be successful with the provided funding.

To compute this model, the target variable was derived from the [IS\_SUCCESSFUL] column, and the features were all the other variables. Name and EIN columns were removed as they solely served as identification columns.

For compiling the model, I used two layers initially, aside from the output layer, with 80 and 30 neurons respectively. I wanted to choose a large number of neurons to allow the model to learn complex patterns from the data effectively, but not too large that overfitting is a problem.

With this model, I got an accuracy of 72.75%, and so did not achieve the target model performance. I tried to increase model performance by increasing the number of neurons, changing the activation functions from relu to tanh, and adding another layer. Adding an additional layer did increase performance to 72.92% but that is the highest performance I was able to achieve.